

# Adaptive Implementation and Monitoring Framework

## Adaptive Management Guides and Checklists

PRE-IMPLEMENTATION CHECKLIST					
Project:			District:		
NEPA Document:			Sign Date:		
Responsible Official:			Title:		
Partnership Project:		Primary Partner(s):			
Project Objective(s):					
Accounting Unit:			Accounting Unit:		
Project Description / Location					
Data File Location(s):					

*For all "yes" answers below attach supplemental project worksheets, documentation or approval information. District Ranger signature confirms all appropriate documentation for necessary pre-implementation items is attached and the project can proceed.*

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

### ATTACHMENT 2: Decision-Making Triggers for the LAVA Project

The decision-making triggers outlined below correspond to the Issues tables discussed in Chapter 1 within the Issue Development and Resolution section. Yellow-light triggers indicate that a resource has the potential to be negatively impacted by treatment proposals, demonstrating the need for more rigorous Project Design Features, a change in management approach, or slowing the pace of implementation. Red-light triggers correspond with a legal standard or project standard that cannot be exceeded and demonstrate a need to either discontinue treatment proposals or to consider other treatment options.

Table X. Decision-making Triggers for Adaptive Implementation of the LaVA Project.

Desired Condition	Indicator(s)	Unit of Measure	Methods	Scale	Frequency	Yellow-light Trigger	Adaptive Action Options	Red-light Trigger	Adaptive Action Options	Regulatory Requirement
Watershed Condition and Trends										
Disturbance from vegetative treatments and temporary road construction is maintained at 25 percent or less of 6 <sup>th</sup> level watersheds. Other natural events (wildfire) could also affect watershed conditions.	Weighted acres <sup>2</sup> of management actions, or other anthropogenic or natural disturbances within the watershed, considering watershed improvement projects and time since disturbance.	Equivalent <del>Clearcut</del> Acres (ECA)	Track acres of management actions and/or natural disturbances reported in FACTS or INFRA (Forest Service databases) or other appropriate databases.	6 <sup>th</sup> level Watershed	<b>Pre-treatment:</b> Review disturbance acreages prior to treatment design and layout; pre-treatment checklist item <b>Post-treatment:</b> Annual reporting	Cumulative management and natural event acres are approaching 25 percent ECA	<ul style="list-style-type: none"><li>• Maintain treatment(s) as planned, validating modeling results (e.g., recovery actions such as road rehabilitation; confirm prior vegetation management actions; confirm recovery timeframes for affected vegetation types; assess watershed sensitivity; and asses on-the-ground conditions) to ensure 25 percent ECA threshold is not exceeded;</li><li>• Reduce acres of treatment or modify intensity of treatment; or</li><li>• Develop more rigorous project design features to ensure 25 percent ECA threshold is not exceeded (e.g., wider buffers along water influence zones).</li></ul>	Cumulative management and natural event acres will exceed 25 percent ECA after model validation.	<ul style="list-style-type: none"><li>• Same as yellow; or</li><li>• Discontinue treatment proposal(s) until sufficient watershed recovery has occurred.</li></ul>	Forest Plan; Watershed Conservation Practices Handbook

ATTACHMENT 5: Project Implementation Checklist					
Project:			District:		
NEPA Document:			Sign Date:		
Responsible Official:			Title:		
Partnership Project:		Primary Partner(s):			
Project Objective(s):					
Accounting Unit:			Accounting Unit:		
Project Description / Location					
Data File Location(s):					

Available Treatment Acres from Proposed Action					
Stand Initiation:		Intermediate:		Other Treatment(s):	
Project Treatment Acres					
Stand Initiation:		Intermediate:		Other Treatment(s):	
	Treatment Acres	Treatment Type	Treatment Acres	Treatment Type	Treatment Acres
Management Area Acreage					
ment Area	Treatment Acres	Management Area		Treatment Acres	

### Attachment 4: Vegetation Treatment Options

Table 63. Vegetation treatment options for stand initiation or even-aged treatments (up to 95,000 acres)

Adaptive Management: Vegetation Treatment Options	Regeneration Objective	% Overstory Removal	Current <sup>1</sup> Mortality	Current Insect and Disease level	Site Prep	Slash treatment
Clearcut: This treatment can remove all the trees from the stand, producing a fully exposed microclimate for the development of a new age class.	Yes (even-aged)	Up to 100%	50 to 100%	Moderate to high	Yes	Varies
Coppice: This treatment removes all of the trees (aspen) from the stand and the majority of the regeneration that occurs is from sprouts or root suckering.	Yes (even-aged)	Up to 100%	50 to 100%	Moderate to high	Yes	Varies
Stand-replacing prescribed fire: This treatment kills all or most of the living canopy (trees). It produces a fully exposed microclimate and initiates succession or regrowth.	Yes (even-aged)	Up to 100%	50 to 100%	Moderate to high	Yes	Varies
Final shelterwood removal cut: This treatment releases established regeneration from the competition with the overstory after there is no longer a need for shelter under the shelterwood regeneration method.	Yes (even-aged)	Up to 100%	50 to 100%	Moderate to high	Yes	Varies
Seed tree cut (preparatory): This treatment removes trees to enhance conditions for seed production, develop wind firmness for a future seed-tree seed cut, or both.	Yes (even-aged)	Up to 100%	50 to 100%	Moderate to high	Yes	Varies
Overstory removal: This treatment removes trees constituting an upper canopy layer to release understory trees. The primary source of regeneration is advanced reproduction.	Yes (even-aged)	Up to 100%	50 to 100%	Moderate to high	Yes	Varies

### Attachment 3: LaVA Project Design Features

Project design features were developed to conserve and protect area resources during implementation of the LaVA Project. The majority of the design features were derived and adapted from forest plan standards and guidelines, the Region 2 Watershed Conservation Practices Handbook, national core best management practices for water quality management on National Forest System lands, and best management practices developed by the state of Wyoming.

The project design features listed below are expected to provide adequate resource protection under most treatment scenarios associated with LaVA implementation. However, there may be instances where additional or more stringent design features are needed to address locally unique conditions. These situations are addressed in specific project design features, such as amphibian and fisheries project design feature #7 and soils project design feature #2. The additional, or more stringent, project design features would be developed by Forest Service resource specialists and approved by the responsible official prior to project implementation.

#### Recreation

**Objective:** Maintain or improve the condition of recreation resources while enhancing recreation opportunities by improving public safety and accessibility around recreation features.

Design Feature Number	Description
#1	Remove operational slash and merchantable materials from developed recreation sites that are the direct result of logging the site.
#2	Do not implement treatments in developed campgrounds between November 15 and April 30. If this is not feasible, coordinate treatment timing to minimize conflicts with recreation use.
#3	Temporary road crossings, skid trail crossings, or both across designated trails would be kept to a minimum. Any crossings would be perpendicular to designated forest trails.
#4	Minimize overlaying skid trails/haul roads on nonmotorized system trails. If trails are used as skid trails and haul roads, they will be returned to pre-existing conditions. Trail widths will not be increased.

